Amendments to the Claims:

Please amend the claims to read as follows:

1. (currently amended) A method for routing packets in a router having a plurality of router interfaces through which the packets are received from a plurality of address domains ~~and having a separate routing table dedicated to each address domain~~, the method comprising:

dedicating a separate routing table to each address domain of the plurality of address domains;

associating each router interface with one of the routing tables; and

executing a single IP stack to receive a packet[~~s~~] from any of the router interfaces and to identify ~~an appropriate~~ the associated routing table for handling the received packet[~~s~~].

2. (canceled)

3. (previously presented) The method of claim 1, wherein a mapping array associates interfaces connecting to the same address domain with the same routing table.

4. (previously presented) The method of claim 1, wherein executing a single IP stack forwards a received packet according to the identified routing

table when the received packet is a data packet and updates the identified routing table when the received packet is a control packet.

5. (canceled)

6. (original) The method of claim 1 wherein each of the plurality of address domains represents a virtual private network.

7. (currently amended) A router comprising:

a plurality of router interfaces through which packets from a plurality of address domains are received;

a separate routing table associated with each address domain; and

a domain manager executing a single IP stack to receive a packet[s] from any of the router interfaces and to identify an appropriate routing table for handling the received packet[s].

8. (canceled)

9. (previously presented) The router of claim 7, wherein the domain manager comprises a mapping array that associates each interface to a routing table.

10. (previously presented) The router of claim 7, wherein the domain manager executing the single stack forwards a received packet according to the identified routing table when the received packet is a data packet

and updates the identified routing table when the received packet is a control packet.

11. (canceled)

12. (original) The router of claim 7 wherein each of the plurality of address domains represents a virtual private network.

13.-20. (canceled)